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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,883	08/21/2003	Dae-Sik Kim	1293.1957	6836
21171	7590	11/03/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			SEVER, ANDREW T	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,883

Applicant(s)

KIM ET AL.

Examiner

Andrew T Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 22-25, 31 and 34 is/are rejected.
- 7) ☒ Claim(s) 26, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The reply filed on 9/20/2004 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): Applicant's amended Specification, claim and arguments have incorrect headers. Applicant has used the header: "10/347,185", however the present application has a serial number of "10/644883" and a docket number of "1293.1957".

Since the amendment's correspond to the present application and not to 10/347,185, they have been examined with the present application, however applicant is required to submit amendments with correct headers in reply to this office action.

Terminal Disclaimer

2. The terminal disclaimer filed on 9/20/2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Applications nos: 10/644,933 and 10/620,810 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 31, 34, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al. (US 5,969,832) in view of Yokoyama (US 6,547,400.)

Nakanishi teaches in figure 1 a projection system comprising a light emitter (1), which emits light of a plurality of different colors;

A light valve (7) which forms a color image by turning pixels one of on and off according to an input image signal, the light valve disposed at an image forming end of the light path;

A collimator lens (3) disposed in the light path between the light emitters and the light valve, the collimator transmitting incident light beams at least nearly parallel;

A scrolling unit (4 or 5) rotatably disposed on the light path between the collimator lens and the light valve, the scrolling unit rotatable about a single axis, receiving incident light beams, separating the incident light beams into color beams, and scrolling the color beams so that they are received by the light valve at different portions thereof (the scrolling units separately rotate about the axis coming out of the page and they rotate about that axis in the form of an ellipse); and

A pair of fly-eye lenses (6, a lenticular array is made of a plurality of fly-eye lenses) disposed on the light path between the scrolling unit and the light valve which

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receive the scrolling color beams and focus the color beams onto the relay lens disposed on the light path between the pair of fly-eye lenses and the light valve and transmits to the light valve received color beams from the pair of fly-eye lenses.

Nakanishi does not teach a plurality of light emitters. Yokoyama teaches such a plurality in figure 1 with LEDs (21). Yokoyama teaches in column 2 lines 1-15 that the use of LEDs or other point light sources over Arc lamps like that taught by Nakanishi has the advantage of allowing for a smaller compact projection system with a uniform light intensity. Given that making the projection system smaller is a goal of those of ordinary skill in the art, it would have been obvious to those same ones of ordinary skill in the art at the time the invention was made to use LEDs or other point light sources as taught by Yokoyama in the projection system of Nakanishi.

With regards to applicant's claim 34 see above.

With regards to applicant's claims 22 and 23:

The method of using the projection system taught by Nakanishi in view of Yokoyama above is obvious.

With regards to applicant's claims 24 and 25:

The collimating lens (3) adjusts the width of the light beams before separating while the lenticular lens array (6) inherently adjusts the width of the light beams after separation.

Allowable Subject Matter

5. Claims 1-21 and 27-30 are allowed.
6. Claims 26, 32, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:
Claims 1-21, 27-30, 26, 32, and 33 are indicated as being allowable since the provisional double patenting rejections have been overcome by a terminal disclaimer. Nakanishi in view of Yokoyama does not teach a scrolling unit having cylinder cells and Nakanishi in view of Yokoyama does not teach the cylindrical lenses as claimed in claims 32 and 33. This was not found elsewhere in the prior art alone or in such a way as to be combinable with Nakanishi in view of Yokoyama in order to obtain the claimed invention. Accordingly claims 1-21, 27-30, 26, 32, and 33 are indicated as being allowable.

Response to Arguments

8. Applicant's arguments filed 9/20/2004 with regards to claims 31, 34, and 22-25 have been fully considered but they are not persuasive.

Applicant argues that the amendment of having the scrolling unit rotatable about a single axis reads over the Nakanishi reference. The office disagrees although the Nakanishi shows two separate units that the scrolling unit is moved around (thus forming an ellipse), based on the definition of rotate it is rotatable about a single axis (for example a single imaginary axis in center between the two units.) The term rotate does not require a circle. Further the word rotatable only requires that the scrolling unit has the ability to rotate about a single axis, not that it actually does rotate about a single axis; since clearly the hologram making up Nakanishi's scrolling units are flexible it would be within the skill of one of ordinary skill in the art to rotate it about a single unit instead of two.

Accordingly applicant's argument's are not found persuasive and the rejection is made final.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS


JUDY NGUYEN
PRIMARY EXAMINER